DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028036
Date Inspected: 23-Jul-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 900
OSM Departure Time: 1930
Location: Job Site

CWI Name: William Sherwood

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS Tower

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 12W/13W corner drop-in assembly side plate ‘C1.1’ outside, QA randomly observed ABF/JV qualified welder James Zhen continuing to perform CJP groove (splice) back welding fill pass to cover pass on the splice butt joint. The welder was observed perform manual welding in the 4G (overhead) position utilizing a Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C-Cu. The joint being welded has a single V-groove butt joint with copper backing bar that has been removed, back gouged and ground and tested by ABF QC using MT. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder with measured working current of 120 amperes. At the end of the shift, cover pass welding at location mentioned above was still continuing and should remain tomorrow.

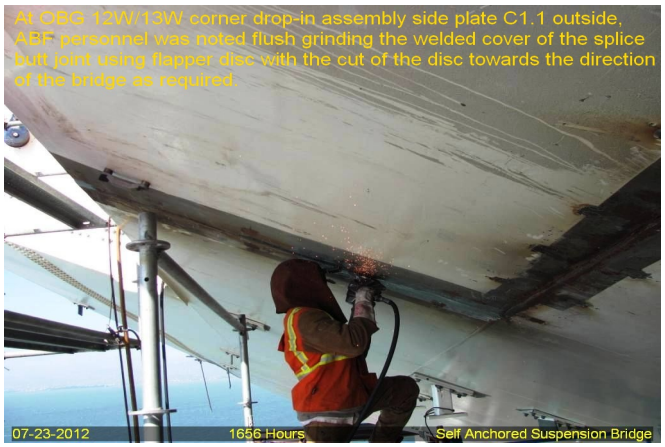
At OBG 12W-W2.1 corner drop-in side plate ‘C1’ outside, QA randomly observed ABF/JV qualified welder Jin Pei Wang continuing to perform CJP groove (splice) back welding fill pass to cover pass on the splice butt joint from Y=20,000mm to Y=25,000mm. The welder was observed perform manual welding in the 4G (overhead) position utilizing a Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C-Cu. The joint being welded has a single V-groove butt joint with copper backing bar that has been removed, back gouged and ground. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding

parameters of the welder with measured working current of 125 amperes. At the end of the shift, cover pass welding at location mentioned above was still continuing and should remain tomorrow.

Other welding related activities noted during the shift include backing bar removal using carbon air gouging at 12W-W2.1 location Y=29,000mm to 31,000mm of corner drop-in assembly top deck plates. Grinding on the groove of the gouged backing bar removal followed after carbon air arc gouging. Flush grinding on the welded cover of 12W/13W corner drop-in assembly side plate C1.1 outside was also noted during the shift.

This QA was also tasked by Lead QA Danny Reyes to perform the alignment (offset) survey on corner drop-in assembly 12W/13W side plate C1.1 and edge plate B outside after welding. The following measurement readings were taken from bottom to top for side plate C and edge to edge for edge plate B and both at 150mm interval;

12W/13W side plate C1.1 (measured offset bottom to top)	12W/13W edge plate B (measured offset edge to edge/bottom to top)
1. 0mm	1. -1mm
2. -3mm	2. -3mm
3. -1mm	3. -4mm
4. 0	4. -6mm
5. -5mm	5. -5mm
6. +2mm	6. -4mm
7. +2mm	7. -5mm
8. -4mm	8. -1mm
9. +1mm	9. -1mm
10. 0	10. -2mm
11. -7mm	11. -1mm
12. -2mm	12. 0
13. -1mm	13. -2mm
14. -5mm	14. -1mm
15. 0	15. +1mm
16. +7mm	16. +4mm



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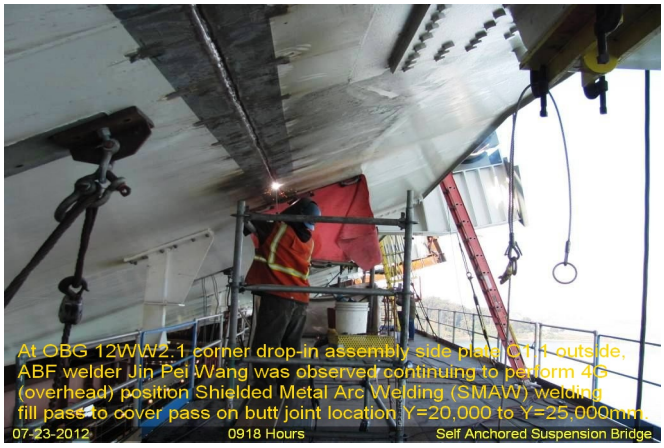

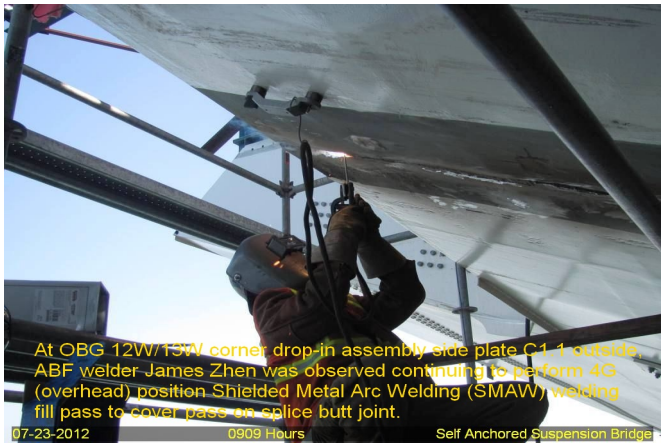

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer